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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,799	08/18/2003	Michael W. Halpin	ASMEX.72CP2D3CD	3691

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EXAMINER

KACKAR, RAM N

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/642,799

Applicant(s)

HALPIN ET AL.

Examiner

Ram N. Kackar

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 113-127 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 120-127 is/are allowed.
- 6) ☒ Claim(s) 113-119 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/6/2006 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 113-117 and 119 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson et al (GB 2181458).**

Johnson et al disclose a method to support a wafer on a susceptor (Fig 4), gas flow through the susceptor between regions above and below the susceptor (Fig 4) with passage having inlet at lower surface and outlet at upper surface, plurality of symmetrical support arms which extend radially outward and upward from upper section of a vertical shaft (81), spacers to hold wafer (16) and means of rotation of the susceptor about the central vertical axis of the shaft

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(Abstract). Further Johnson et al teach heating means using radiant heating and the support arms and shaft of a material transparent to radiant energy (Page 3 lines 99-101). Further the susceptor it self provides dividing structure to substantially fluidly separate the regions above and below.

Regarding the first portion extending radially outward from an upper section of a substantially vertical shaft, part 80 in Johnson et al is functionally equivalent to horizontal arms since it merely provides a mechanical support and is transparent to radiant energy it does not affect the process in a manipulative sense.

Apparatus limitations, unless they affect the process in a manipulative sense, may have little weight in process claims. *In re Tarczy-Hornoch* 158 USPQ 141, 150 (CCPA 1968); *In re Edwards* 128 USPQ 387 (CCPA 1961); *Stalego v. Heymes* 120 USPQ 473, 478 (CCPA 1959); *Ex parte Hart* 117 USPQ 193 (PO BdPatApp 1957); *In re Freeman* 44 USPQ 116 (CCPA 1940); *In re Sweeney* 72 USPQ 501 CCPA 1947).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 118 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al (GB 2181458) in view of Hardy et al (US 5343012) or alternatively in view of Kazuo Fukazawa (JP 05013350).

Johnson et al is disclosed above.

Johnson et al do not disclose the gas passages in the susceptor to include horizontal channels.

It is obvious however that the horizontal orientation of gas passages helps distribute gas to outlets opening in the upper surface.

Hardy et al disclose gas passages in a susceptor, which include horizontal channel.

Kazuo Fukazawa similarly discloses horizontal sections of gas passages for the same reason (Fig 1, 3 and 5).

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to have horizontal sections of gas passages in order to distribute gas evenly at the upper surface.

Allowable Subject Matter

Claims 120-127 are allowable for the recitation of capability of gas flow through support arm in the context of other limitations of these claims.

Response to Arguments

Applicant's arguments filed 3/6/2006 have been fully considered but they are not persuasive.

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Applicant's argument regarding the shape of member 80 in Johnson et al is addressed above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ram N. Kackar whose telephone number is 571 272 1436. The examiner can normally be reached on M-F 8:00 A.M to 5:P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571 272 1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ram Kackar
Primary Examiner AU 1763